

FORM PTO-1449 (REV 7-80)		Patent No. CBK03072 (3600-374-22)		Application No. 10/649,347			
INFORMATION DISCLOSURE STATEMENT		APPLICANT: REZNEK et al.					
		Filing Date: August 27, 2003		Group Art Unit: Unassigned			
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE, IF APPROPRIATE
R		3,659,896	5/2/72	Smith et al.	296	93	
		4,071,496	1/31/78	Kraus et al.	260	42.36	
		4,088,628	5/9/78	Bernstein et al.	260	42.46	
		4,255,296	3/10/81	Ogawa et al.	260	5	
		4,259,218	3/31/81	Haws	260	5	
		4,360,627	11/23/82	Okado et al.	524	496	
		4,478,973	10/23/84	Misono et al.	524	496	
		4,540,560	9/10/85	Henderson et al.	423	445	
		4,548,980	10/22/85	Nagata et al.	524	495	
		4,678,830	7/7/87	Sato et al.	524	495	
		4,690,965	9/1/87	Hirata et al.	524	236	
		4,721,740	1/26/88	Takeshita et al.	523	215	
		4,914,147	3/3/90	Mouri et al.	524	495	
		5,093,407	3/3/92	Komai et al.	524	495	
		5,124,396	6/23/92	Branon, Jr., et al.	524	496	
		5,128,395	7/7/92	Terakawa et al.	524	274	
		5,162,421	11/10/92	Ue et al.	524	495	
		5,194,488	3/16/93	Piestert et al.	524	703	
		5,231,129	7/27/93	Misono	524	496	
		5,232,974	8/3/93	Branan, Jr. et al.	524	495	
		5,288,788	2/22/94	Shieh et al.	524	495	
		5,292,790	3/8/94	Shimizu et al.	524	496	
		5,310,777	5/10/94	Sekido et al.	524	496	
		5,321,072	6/14/94	Misono	524	496	
	5,322,724	6/21/94	Levens	428	57		
	5,322,874	6/21/94	Fujii et al.	524	227		



U.S. Patent Application No. 10/649,347

Page 2 of 4

5,352,289	10/4/94	Weaver et al.	106	476
5,362,794	11/8/94	Inui et al.	624	496
5,382,621	1/17/95	Laube	524	496
5,426,148	6/20/95	Tucker	524	496
5,428,099	6/27/95	Morarr et al.	524	495
5,430,087	7/4/95	Carlson et al.	524	496
5,480,626	1/2/96	Klasen et al.	423	449.1
5,534,578	7/9/96	Wideman et al.	524	396
5,547,609	8/20/96	Fujii et al.	252	511
5,639,817	6/17/97	Probst et al.	524	496
5,643,991	7/1/97	Stipe et al.	524	496
5,652,298	7/29/97	Murray	524	571
5,696,197	12/9/97	Smith et al.	524	495
5,705,555	1/6/98	Guilfooy et al.	524	495
5,714,096	2/3/96	Dorfman	252	511
5,723,531	3/3/98	Visel et al.	524	496
5,733,480	3/31/98	Lee et al.	252	511
5,801,209	9/1/98	Chung et al.	521	99
5,859,120	1/12/99	Karl et al.	524	495
5,877,250	3/2/99	Sant	524	496
5,877,251	3/2/99	Sant	524	496
6,013,737	1/11/00	Takagishi et al.	525	332.7
6,046,266	4/4/00	Sandstrom et al.	524	492
6,056,933	5/2/00	Vogler et al.	423	449.1
6,084,015	7/4/00	Chino et al.	524	189
6,086,792	7/11/00	Reid et al.	252	511
6,096,833	8/1/00	Araki et al.	525	342
6,099,818	8/8/00	Freund et al.	423	449.1
6,277,350 B1	8/21/01	Gerspacher	423	449.1
6,228,928 B1	5/8/01	Soeda et al.	524	495
6,391,274 B1	5/21/02	Vogler et al.	423	275



U.S. Patent Application No. 10/649,347

Page 3 of 4

SA	6,410,630 B1	6/25/02	Hoover et al.	524	365	
	US 6,448,309 B2	9/10/02	Mahmud et al.	523	215	
	US 2001/0036995 A1	11/1/01	Mahmud et al.	524	495	
	US 2002/0077409 A1	6/20/02	Sakaki et al.	524	496	
	US 2002/0107318 A1	8/8/02	Yamada et al.	524	495	
	US 2002/0156177 A1	10/24/02	Freund	524	496	
	US 2002/0173582 A1	11/21/02	Schmidt	524	504	

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

SA	"Bound Rubber and Carbon Black Reinforcement," by E. M Dannenberg, 1986, pp. 512-524.
	"Filler-Elastomer Interactions. Part VII. Study on Bound Rubber," by Siegfried Wolff et al., reprinted from RUBBER CHEMISTRY AND TECHNOLOGY, Vol. 66, No. 2, May-June 1993, 163-177.
	"Standard Test Method for Carbon Black - Iodine Adsorption Number," ASTM Designation D 1510-99, pp. 271-275.
	"Standard Test Method for Carbon Black - CTAB (Cetyltrimethylammonium Bromide) Surface Area," ATSM Designation D 3765-99, pp. 563-568.
	"Standard Test Methods for Carbon Black - Surface Area by Multipoint B.E.T. Nitrogen Adsorption," ATSM Designation D 4820-97, pp. 763-769.
	"Standard Test Methods for Carbon Black - External Surface Area by Multipoint Nitrogen Adsorption," ATSM Designation D 5816-96, pp. 878-880.
SA	"Standard Test Method for Carbon Black - Total and External Surface Area by Nitrogen Adsorption," ATSM Designation D 6556-00a, pp. 970-974.



U.S. Patent Application No. 10/649,347

Page 4 of 4

	"Roles of Work of Adhesion between Carbon Blacks and Thermoplastic Polymers on Electrical Properties of Composites," by Soo-Jin Park et al., published in the JOURNAL OF COLLOID AND INTERFACE SCIENCE 255, pp. 145-149 (2002).		
	"Component Interactions and the Stability of Some Pigment/Polymer Dispersions," by P. Mukhopadhyay et al., published in the JOURNAL OF APPLIED POLYMER SCIENCE, Vol. 67, pp. 245-253 (1998).		
	"Adhesion and Components of Solid Surface Energies," by John H. Clint, published in CURRENT OPINION IN COLLOID & INTERFACE SCIENCE 6, pp. 28-33 (2001).		
	"Estimation of the Reliability of Hansen-Parameters of Photooxidative Degraded Polymer Films by Contact Angle Measurements," by Anita Horn et al., Hildesheim, Germany, pp. 1-12.		
	"Basic and Acidic Surface Oxides on Carbon Fiber and Their Influence on the Expected Adhesion to Polyamide," by A. Bismarck et al., published in COLLOIDS AND SURFACES, A: Physiochemical and Engineering Aspects 159, pp. 341-350 (1999).		
EXAMINER		DATE CONSIDERED	
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>			

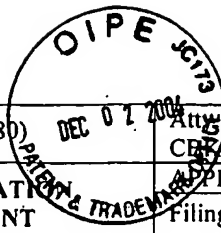
FORM PTO-1449 (REV 7-80)	DEC 0 2 2003	Attorney Docket No. BK 03072 (3600-374-22)	Application No. 10/649,347
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT		APPLICANT: REZNEK et al. Filing Date: August 27, 2003	
		Group Art Unit: 1743	

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE, IF APPROPRIATE
J	5,190,739	5/2/93	MacKay et al.	423	450	
	5,211,932	5/18/93	Blaylock et al.	423	450	
	5,688,317	11/18/97	MacKay et al.	106	476	
	5,974,167	10/26/99	Reszler	382	141	
	6,156,837	12/5/00	Branan, Jr. et al.	524	495	
	2003/0162876 A1	8/28/03	Vanier et al.	524	437	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

J	Attachment A - Development History	NO DATE
	Strom, "Wetting studies related to offset printing," Vol. 50-04C, pp. 768 (1988) Abstract only	
	Tikhonov, "On the evaluation of the work of adhesion, cohesion, and surface tension of high - viscous and solid bodies," Kolloidn Zh, Vol. 53, No. 3, pp. 552-558 (1991) Abstract only	
	Janczuk, et al., "Surface free energy components and adsorption properties of some porous glasses," Mater Chem Phys. Vol. 25, No. 2, pp. 185-198 (1990) Abstract only	
	Janczuk, et al., "Surface free energy of celestite and its flotation activity," Colloids Surf. Vol. 35, No. 1, pp. 41-48 (1989) Abstract only	
	Wojcik et al., "Gas-adsorption studies on correlations between the flotability of minerals and the work of water adhesion to their surfaces," Colloids Surf. Vol. 30, No. 3-4, pp. 275-285 (1988) Abstract only	
	Lipatov, "Adhesion at the polymer mixtures-solid interface," Vide, Couches Minces, Vol. 50 (274), pp. 415-420 (1994) Abstract only	
	Hill, "Wall slip in polymer melts: A pseudo-chemical model," J. Rheol. Vol. 42, No. 3, pp. 581-601 (1998) Abstract only	
	Scheie, "The upward force on liquid in a capillary tube," Am. J. Phys. Vol. 57, No. 3, pp. 278-289 (1989) Abstract only	
	Lee et al., "Effects of polymer-filler interaction on the mechanical properties of nylon 6,6 filled with organosilane-treated fillers," J. Adhes. Sci. Technol., Vol. 3, No. 4, pp. 291-303 (1989) Abstract only	
	Abramzon et al., "Determination of the work of adhesion and cohesion" ZH. Prikladnoi Khim, Vol. 53, No. 5, pp. 1040-1043 (1980) Abstract only	
	Mangipudi et al., Direct measurement of molecular level adhesion between poly(ethylene terephthalate) and polyethylene films: Determination of surface and interfacial energies," J. Adhesion Sci. Technol., Vol. 8, No. 11, pp. 1251-1270 (1994) Abstract only	
	Owen, "Surface properties of silicone release coatings," Proc. First Internat. Congress on Adhesion Science and Technology, pp. 255-263 (1995) Abstract only	
K	Kaya, "The effect of pore fluid contamination on a selected physico-chemical parameters of fine grained soils (Adsorption, Conductivity), Vol. 57-05B, p. 3354 (1996) Abstract only	




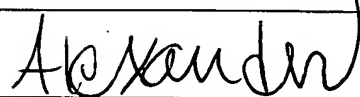
FORM PTO-1449 (REV 7-80)	Attorney Docket No. CEP 03072 (3600-374-22)	Application No. 10/649,347
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT		APPLICANT: REZNEK et al. Filing Date: August 27, 2003 Group Art Unit: 1743

R	Qin, "Adhesion properties of polymeric materials (Asphalts, Cohesion), Vol. 57-02B, p. 1260 (1995) Abstract only
	Stepanov, "Electrocapillary behaviour of liquid bismuth in binary melts of strontium chloride with sodium and cesium chlorides," Ehlektrokhimiya, Vol. 30, No. 8, pp. 1032-1038 (1994) Abstract only
	Kulawik, et al., "Kinetics of the molecular interactions in some extraction system," ISEC '88 International solvent extraction Conference, Vol. 2, pp. 77-78 (1988) Abstract only
	Nardin et al., "Stress transfer analysis in fibre/elastomer interfaces," Comptes-Rendus des Huitiemes Journées Nationales sur les Composites, "pp. 289-300 (1992) Abstract only
	Maugis, "Adherence and Fracture Mechanics," Adhesive Bonding, pp. 303-335 (1991) Abstract only
	Wan et al., "Surface forces at crack interfaces in mica in the presence of capillary condensation," Acta Metallurgica et Materialia, Vol. 38, No. 11, pp. 2073-2083 (1990) Abstract only
	Savenko et al., "Effect of diamond-like carbon coatings on the mechanical properties of subsurface layers of single crystals of silicon," Physics and Chemistry of Materials Treatment, Vol. 31, No. 2, pp. 149-153 (1997) Abstract only
	Lellig et al., "Glass and polymer: wetting and adhesion," Glass Science and Technology, Vol. 69, No. 11, pp. 357-367 (1996) Abstract only
	Maugis, "Adherence of elastomers: fracture mechanics aspects," Journal of Adhesion, Vol. 23, No. 1, pp. 61-66 (1987) Abstract only
	Riande et al., "Fundamental aspects of the adhesion of polymers," Revista de Plasticos Modernos, Vol. 80, No. 530, pp. 170-179 (2000) Abstract only
	Gilbert, "Surface treatments for particulate fillers in plastics," Plastics Additives. AN A-Z reference, pp. 590-603 (1998) Abstract only
	Maltese, "Interfacial energy between polymers," Materie Plastiche ed Elastomeri, Vol. 64, Nos. 1/2, pp. 74-78 (1999) Abstract only
	Cherry et al., "Predicting work of adhesion using molecular modeling," Adhesion '96, Conference Proceed., Vol. 1, pp. 299-304 (1996) Abstract only
	Feinerman et al., "Rule of interfacial equilibrium," J. Adhesion, Vol. 60, Nos. 1-4, pp. 99-112, (1997) Abstract only
	Geraghty et al., "Investigation of parameters influencing bioadhesive properties of myverol 18-99/water gels," Biomaterials, Vol. 18, No. 1, pp. 63-67 (1997) Abstract only
	Wimolkiatisak et al., "Directly paintable, high adhesion polyolefin compounds, Plast' 21 No. 43, pp. 44-47 (1995) Abstract only
	Drzal, et al., "Adhesion of carbon fibres to polycarbonate matrices: interphase composition and structure," Antec '95. Vol. II, Conference Proceedings, pp. 2877-2881 (1995) Abstract only
	Moore, "Wetting in rubber-to-metal bonding agents," Rubb. Plast. News, Vol. 24, No. 7, pp. 17-18 (1994) Abstract only
	Mangipudi et al., "Adhesion of thin polymer films: Effects of surface and interfacial energies and rheological properties," Antec '93 Conference Proceedings, Vol. III, pp. 3099-3100, (1993) Abstract only
✓	Bautista et al., "Surface characterization of polypropylene used as a matrix in composite materials," Rev. Plast. Mod. Vol. 66, No. 449, pp. 505-509 (1993) Abstract only

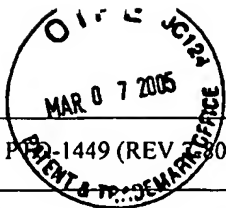
FORM PTO-1449 (REV 7-80)	DEC 01 2004	App. Docket No. PAK03072 (3600-374-22)	Application No. 10/649,347
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT		APPLICANT: REZNEK et al.	
		Filing Date: August 27, 2003	Group Art Unit: 1743

R	Pritykin et al., "New thermodynamic characteristics of polymer adhesive properties," International Adhesion Conference, p 11.1-3 (1984) Abstract only
	Moskvitin, "Physicochemical Principles of Gluing and Adhesion processes, NSF, Rpt. No. SFCSTI-Agr (TT-68-50368, p. 197 (1969) Abstract only
	Mayne, "Further developments with epoxy/polyamine films," Corros. Sci., Vol. 35, Nos. 5/8, pp. 1359-1361 (1993) Abstract only
	Padday, "Spreading, wetting, and contact angles," J. Adhes. Sci. Tech., Vol. 6, No. 12, pp. 1347-1358 (1992) Abstract only
↓	Mark, "Future improvements in cohesive and adhesive strength of polymers. I.," Adhesives Age, Vol. 22, No. 7, pp. 35-40 (1979) Abstract only
R	Hansen, "The three dimensional solubility parameter - key to paint component affinities: I. Solvents, Plasticizers, Polymers, and Resins," Journal of Paint Technology, Vol. 39, No. 505, pp. 104-117 (1967)
	Hansen, "The three dimensional solubility parameter - key to paint component affinities: II and III - II. Solvents, Plasticizers, Polymers, and Resins," Journal of Paint Technology, Vol. 39, No. 511, pp. 505-510 (1967)
	Hansen, "III. Independent calculation of the parameter components," Journal of Paint Technology, Vol. 39, No. 511, pp. 511-514 (1967)
	Hansen et al., "On the use of cohesion parameters to characterize surfaces," J. Adhesion, Vol. 15, pp. 275-286 (1983)
	Hansen, "Cohesion parameters for surfaces, pigments, and fillers," Surface Coatings International Vol. 8, pp. 386-391, (1997)
	Shareef et al., "Suspension interaction of pigments in solvents: characterization of pigment surfaces in terms of three-dimensional solubility parameters of solvents," Journal of Coatings Technology, Vol. 58, No. 733, pp. 35-44 (1986)
	Vinther, "Application of the concepts solubility parameter and pigment charge," Chemie des Peintures Engl. Vol. 34, No. 10, pp. 363-372 (1971)
	Schreiber, "Solvent balance, dispersion and rheological properties of pigmented polymer compositions," Journal of Paint Technology, Vol. 46, No. 598, pp. 35-39 (1974)
	Burrell, "The challenge of the solubility parameter concept," Journal of Paint Technology, Vol. 40, No. 520, pp. 197-208 (1968)
	Trudgian, "The pattern of solvent-resin-pigment affinities," Official Digest, Presented at the 41 st Annual Meeting of the Federation of Societies for Paint Technology, pp. 1210-1231 (1963)
	Schroder, Colloid chemistry aids to formulating inks and paints, Harmonization of the energetics of raw materials by using the solubility parameter concept," Vol. 5, No. 98, pp. 334-340 (no date)
	Chasey, "Methods for evaluating oil/polymer interactions in carbon black filled compounds," Rubber World, pp. 35-40 (1993)
	Wolff, et al., "Filler-elastomer interactions. Part VII. Study on bound rubber," Rubber Chemistry and Technology, Vol. 66, No. 2, pp. 163-177 (1993)
	Barton, "CRC Handbook of solubility parameters and other cohesion parameters," pp. 1-21, (1991)
✓	Kaya, et al., "Interfacial parameters and work of adhesion in soil-liquid systems," Geotechnical Testing Journal, Vol. 23, No. 4, pp. 464-471 (2000)

FORM PTO-1449 (REV 7-80)	DEC 0 1 2004	App. Docket No. BK03072 (3600-374-22)	Application No. 10/649,347
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT		APPLICANT: REZNEK et al.	
		Filing Date: August 27, 2003	Group Art Unit: 1743

	Skaarup, "The three dimensional solubility parameter and its use - II. Pigmented Systems," pp. 28-42 (no date)
	Grubenmann, "The solvent dependence of the solubility of organic solids, and solubility parameter theory: investigation by means of an organic pigment," Dyes and Pigments, Vol. 21, pp. 273-292 (1993)
EXAMINER	DATE CONSIDERED
	12/21/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM PTO-1449 (REV 10/00)	Atty. Docket No. CBK03073 (3600-374-22)	Application No. 10/649,347
INFORMATION DISCLOSURE STATEMENT	APPLICANT: REZNEK et al.	
	Filing Date: August 27, 2003	Group Art Unit: 1743

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE, IF APPROPRIATE
	3,229,507	1/18/66	Sljaka et al.	73	59	
	4,093,421	6/6/78	Jerkins	23	259.5	
	4,878,379	11/7/89	Deer	73	60	
	4,992,190	2/12/91	Shtarkman	252	62.52	
	5,303,578	4/19/94	Williams et al.	73	54.24	
	5,405,623	4/11/95	Barkalow et al.	426	5	
	5,792,941	8/11/98	Rye et al.	73	53.01	
	2003/0097871 A1	5/29/03	Mansky	73	64.49	
	2003/0164027 A1	9/4/03	Terrom	73	64.48	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
						YES	NO
	EP 0253290	1/20/88	EPO	C03G	9/08	X	
	EP 0453625	10/30/91	EPO	C09K	7/02	X	
	EP 0919801	6/2/99	EPO	G01N	13/02	NO TRANSLATION To consider	See Int'l. Search Report
	GB 2378716	2/19/03	Great Britain	C09K	7/02	X	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

International Search Report and Written Opinion for PCT/US2004/010261 dated October 19, 2004.
International Search Report and Written Opinion for PCT/US2004/010267 dated October 15, 2004.
International Search Report and Written Opinion for PCT/US2004/010259 dated October 21, 2004.

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

PTO/SB/08a (05-03)

Approved for use through 04/30/2003. OMB 0851-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
to a collection of information unless it contains a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known Application Number 10/649,347 Filing Date August 27, 2003 First Named Inventor Reznka et al. Art Unit 1743 Examiner Name Lyle Alexander Attorney Docket Number CBK03072 (3600-374-22)	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)					
Sheet	1	of	1		

[illegible]

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). *See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 601.04. *Enter Office that issued the document, by the two-letter code (WIPO Standard St.3). *For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. *Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. *Applicant is to place a check mark here if English language Translation is attached. Burden Hour Statement: This form is estimated to take 2.0 hours to complete: Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.